

Product datasheet for TP726976

OriGene Technologies, Inc.

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DMP1 Human Recombinant Protein

Product data:

Product Type: Recombinant Proteins

Description: Recombinant Human Dentin Matrix Acidic Phosphoprotein 1/DMP-1 (C-6His)

Species: Human

Expression cDNA Clone

or AA Sequence:

Lys17-Tyr513

Tag: C-His

Buffer: Lyophilized from a 0.2 um filtered solution of 20mM PB, 150mM NaCl, pH 7.4.

Note: Recombinant Human Dentin matrix protein 1 is produced by our Mammalian expression

system and the target gene encoding Lys17-Tyr513 is expressed with a 6His tag at the C-

terminus.

Storage: Lyophilized protein should be stored at < -20°C, though stable at room temperature for 3

weeks. Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of

reconstituted samples are stable at < -20°C for 3 months.

Stability: 12 months from date of despatch

Locus ID: 1758 **UniProt ID:** Q13316

Synonyms: Dentin Matrix Acidic Phosphoprotein 1; DMP-1; Dentin Matrix Protein 1; DMP1

Summary: Dentin Matrix Acidic Phosphoprotein 1 (DMP-1) is an extracellular matrix protein and a

member of the small integrin binding ligand N-linked glycoprotein family. DMP-1 is expressed

in teeth particularly in odontoblast, ameloblast, and cementoblast. DMP-1 is critical for

proper mineralization of bone and dentin. DMP-1 may have a dual function during osteoblast differentiation. In the nucleus of undifferentiated osteoblasts, the unphosphorylated form of DMP-1 acts as a transcriptional component for activation of osteoblast-specific genes like osteocalcin. During the osteoblast to osteocyte transition phase, DMP-1 is phosphorylated and exported into the extracellular matrix, where it regulates nucleation of hydroxyapatite.

DMP-1 mutations have also been shown to cause rickets hypophosphatemic autosomal

recessive type 1 (ARHR1).

Protein Families: Secreted Protein

